- Installation

CellarPro cooling units are designed to be installed inside wine cellars that have proper insulation, moisture barriers and airtight seals from the environment outside the cellar.

Interior walls and floor should have a minimum of R-11 insulation, and a vapor barrier on the warm side of the insulation. The ceiling should have a minimum of R-19 insulation and a vapor barrier on the warm side of the insulation. Doors also should be insulated and tightly sealed with weather stripping around the perimeter of the door. Surface-mounted fixtures are recommended over recessed lighting, which can allow air to leak into the cellar.

It is critical that all walls, joints, doors and windows, electrical outlets and/or switches, pipes, vents and light fixtures be sealed to prevent air and moisture from entering the cellar. If there is a leak in the cellar, the cooling unit will build up excess condensation that eventually may damage the internal components and shorten the life of the cooling unit, and may cause water to leak from the cooling unit.

CellarPro cooling units should be mounted in the upright position and located as close to the ceiling as possible inside the cellar. Optional mounting clips for attaching the front of the cooling unit to the ceiling are available for purchase from CellarPro. As warm air rises to the top of the cellar, the cooling unit pulls the warm air through the evaporator coils and removes the heat from the warm air. Once cooled, the cold air is discharged from the bottom of the cooling unit and dissipates downward through the cellar.

In most cases, the rear of the cooling unit will be flush with the outside wall, and assuming 4 1/2 inch interior wall thickness, the front 12 inches will be inside the cellar. At a minimum, the front 8" of the cooling unit must be located inside the cellar, because the cold air discharge is located underneath the cooling unit.

The cooling unit should be mounted in a hole through the wall that is cut 1/4 inch larger than the dimensions (W x H) of the cooling unit. Horizontal 2 x 4 inch braces should be installed between the studs below and above the cooling unit. If the studs in the wall must be cut to accommodate the width of the cooling unit, vertical braces also should be installed on either side of the cooling unit. A shelf with a diagonal brace should be installed inside the cellar below the cooling unit. The shelf should be 13 inches wide, and should be positioned on the right side of the cooling unit so that it doesn't restrict the exhaust vent below the cooling unit.

Once the cooling unit is installed, all cracks and gaps between the cooling unit and the cellar should be sealed. We provide butyl tape (shipped in the cavity of the exhaust vent) for sealing these gaps. The butyl tape becomes pliable by rolling it in your hands. Pay particular attention to the seams on the back of the cellar (top and rear vent configurations) and the seams at the top of the cellar (top-vent configuration).

We offer a **Wine Cellar Modification** for cooling units that will be installed in wine cellars (as opposed to wine cabinets.) The Wine Cellar Modification provides a fitting and condensate tube at the back of the cooling unit to relieve excess moisture that may condense inside the cooling unit. For installations in warm environments and/or cellars without airtight seals, we strongly recommend this modification. However, the modification does not replace the requirement for a cellar to have proper insulation, moisture barriers and airtight seals from the environment outside the cellar.

CellarPro cooling systems should be plugged into an outlet connected to a 15-amp circuit. The cooling unit uses approximately 3 amps during its "on" cycle. The cooling unit also offers a grounded 115V AC outlet, which is rated for 3 amps.

We recommend plugging your CellarPro cooling unit into a surge protector (minimum of 15-amps) to protect the electrical components from power surges or spikes. If using an extension cord, use a grounded 14-gauge or heavier cord, and keep the length to a minimum to avoid voltage drop.

- Ventilation

Proper ventilation is critically important for the proper operation of your CellarPro cooling unit. The CellarPro cooling unit creates a significant amount of hot air, which must be exhausted into an appropriately-sized space in order for the heat to dissipate. If the space is constrained and/or too small, the heat will not dissipate and the cooling unit will end up recirculating hot air. If this happens, the cooling unit's ability to create cold air inside the cellar will be compromised.

CellarPro cooling units have interchangeable vent panels that can be swapped between the top and the rear of the cooling unit to match the configuration of your cellar and exhaust space.

- **Rear vent configuration (most common):** in this configuration, the panel is attached to the top of the cooling unit and hot air is freely exhausted from the rear of the cooling unit into the exhaust space. This configuration requires 4-6" of unobstructed clearance behind the cellar.

- **Top-vent configuration (less common)**: in this configuration, the panel is attached to the rear of the cooling unit and hot air is freely exhausted from the top of the cooling unit into the exhaust space.

    - If the cellar's air intake comes from BEHIND the cellar, the cooling unit will require 3-4" of unobstructed clearance BEHIND the cellar; and 8-9" of clearance above the cellar;

    - If the cellar's air intake comes from the TOP of the cellar, the cooling unit will require 18" of unobstructed clearance above and to both sides of the cellar, unless:

1. The hot air exhaust is ducted away from the cellar; or
2. The hot air exhaust is evacuated via an exhaust fan.

Under both configurations, access to the intake coils (either at the top or the back of the cellar) is required for periodic maintenance.

- **Ambient Environment.**

CellarPro cooling units are designed to operate in ambient temperatures between 50°F and 85°F. They are designed for internal use only, and are not designed for exposure to the exterior.

CellarPro cooling units cannot maintain temperatures inside the cellar that are more than 30°F below the ambient temperature in the space outside the condenser coils. For example, if the ambient temperature in the space outside the condenser coils is 85°F, the cooling unit should be able to maintain temperatures of 55°F inside the cellar.

CellarPro cooling units do not have heating elements, so if temperatures inside the cellar drop below proper wine storage temperatures, the cooling unit cannot create heat inside the cellar.

- **Cooling Capacity (Cubic Feet)**

The cooling capacity for each of our products is shown in the table below. These capacities are estimates and are based on certain assumptions, including sufficient insulation, adequate clearance and airflow, and proper ambient temperatures in and around the cellar.

Model	Dimensions (inches) W x D x H	Operating Amps	Cellar Capacity (cubic feet)
1800QT	18 x 16.5 x 10.5	3	200
1800XT	18 x 16.5 x 10.5	3	300

Important Note

It is critical to follow the guidelines above for proper cellar construction, ventilation and cooling capacity.

- Without proper insulation and an airtight environment, the cooling unit effectively will become a de-humidifier and potentially will produce buckets of water.
- Without access to cool air, either because of improper ventilation or environments that are too hot, the cooling unit will be unable to maintain proper temperatures inside the cellar.
- If the cellar it too large for the cooling unit, the cooling unit will be unable to maintain proper, even temperatures throughout the cellar.

Under these circumstances, the unit's internal components may become damaged, the expected useful life of the wine cooling unit may be adversely affected, and the product's warranty will become null and void.